

### **ABSTRACT**

The present invention relates to a method of producing a vaccine for the prevention of *F. necrophorum* bacterial infections, comprising isolating the *F. necrophorum* bacteria from a bovine species, growing the bacteria in a suitable growth medium for a period equal to between about 10 hours and about 18 hours so as to achieve a bacterial population equal to at least  $1 \times 10^5$  CFU/mL, terminating the growth, and using a whole cell culture to form the vaccine. Additionally, the present invention relates to the vaccine comprised of a killed whole cell population of the *F. necrophorum* bacteria taken from a bovine. The present invention further relates to a method for preventing foot rot and liver abscesses caused by *F. necrophorum* bacteria.